

Automatic Engine Controller

AS3000-02127B
Revised 05-03
Catalog Section 75
(00-02-0525)

FWMurphy



AS3000 Model

- Auto crank disconnect
- Multi-attempt starting
- Fault warning and shutdown
- Reduced panel wiring
- Simple set set-up

Description

The AS3000 provides automatic start up, fault monitoring and shutdown control for engine driven applications. The unique two-module design, with a single interconnecting lead, gives reduced panel wiring and installation. This simple, compact unit is ideally suited to small engine and generator panels.

Key features

- Multi-attempt cranking with auto crank disconnect
- Automatic or manual modes, selected by front facia pushbuttons. Control inputs for optional security keyswitch.
- User interface module: front of panel mounted, 92mm square DIN cut-out. Environmental sealing to IP65
- Panel interface module: DIN rail mounted PCB tray.
- Fault shutdown and indication system. Low oil pressure, high coolant temperature and auxiliary inputs are fitted to both modules, allowing use with engine mounted fault switches or panel mounted SWICHGAGE® units.
- Speed sensing (auto crank disconnect and over-speed shutdown) is via magnetic pickup, generator AC or remote contact. Speed calibration is automatic and adjustment free.
- Mains charger/charge alternator fail warning LED.

- Easy setup of operating options using circuit board links.
- Generator AC Hz meter output, 0 – 5V.

Product Specification

Power supply

Continuous voltage range: 8 – 35 VDC

Brown out voltage: < 5 VDC for 2 secs (recovery to 8V)

Blackout voltage: 0V for 50ms (from 10V, recovery to 5V)

Overvoltage withstand: 50 VDC for 5 seconds (to SAEJ1810 load dump immunity)

Reverse voltage withstand: 100 VDC continuous.

Current consumption (standby): 50mA.

Current consumption (max): 500mA (plus output loads).

DC Inputs

Oil pressure, coolant temp, auxiliary and charger faults: Closed to negative DC ($\pm 3V$) on fault.

Remote start positive: Open from positive DC to start.

Remote start negative: Close to negative DC ($\pm 3V$) to start.

Lamp test: Close to negative DC ($\pm 3V$) to activate.

DC input protection: ± 50 VDC maximum.

AC Inputs

Magnetic pickup: 3 – 60 VAC, 50Hz – 10 kHz.

Generator AC: 600 VAC maximum (L-L or L-N), 50/60 Hz.

Outputs

Fuel: positive DC (transistor), 5A max.

Crank, preheat: positive DC (transistor), 2A max.

Common alarm, fault lockout: negative DC (transistor), 300mA max.

Generator Hz. Meter: 0-1mA (@ 45-65 Hz).

Physical

Dimensions: see “System Overview” on page 2.

Operating temperature: 14 to 149°F (-10 to +65°C).

Relative humidity: 95% @ 140°F (60 °C).

Environmental protection: AS3000 front: IP65, NEMA4.

Back of User Interface and Panel interface require weather-proof enclosures for outdoor use.

Vibration: ISO 88528 pt.9, & 3 axis 3g.

Weight:

AS3000 User Interface: approx. 9 oz. (250g).

AS3000 Panel Interface: approx. 6 oz. (160g).

Shipping Weight: 1 lb. 4 oz. (554 g.).

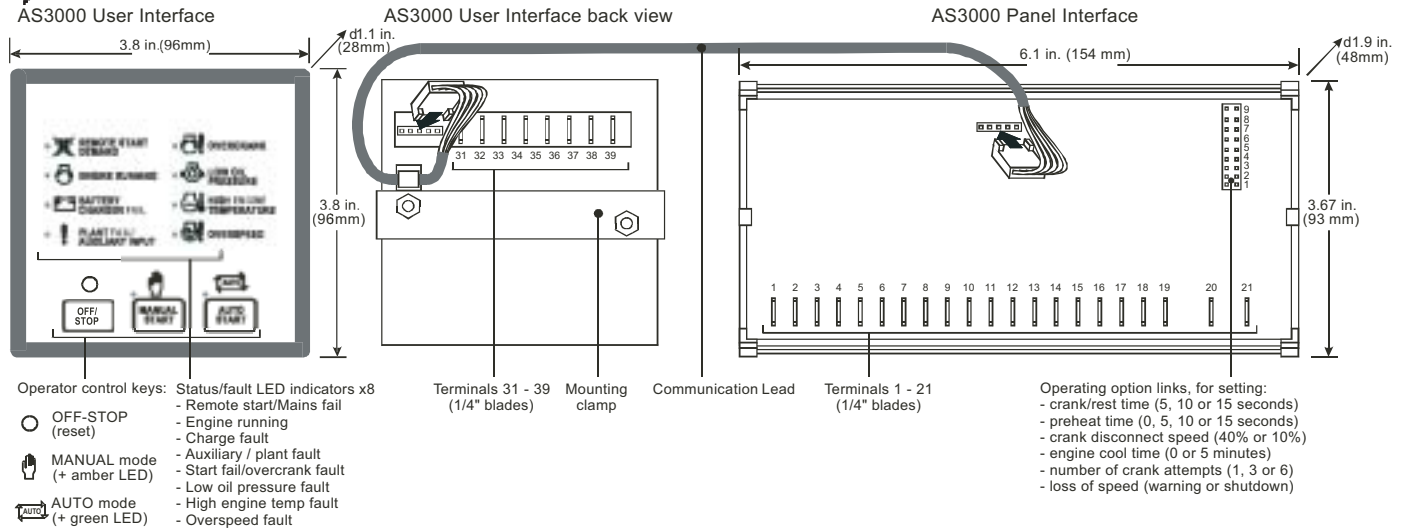
Shipping Dimensions: 7-3/8 x 5 x 3-1/8 inch. (187 x 127 x 79 mm.).



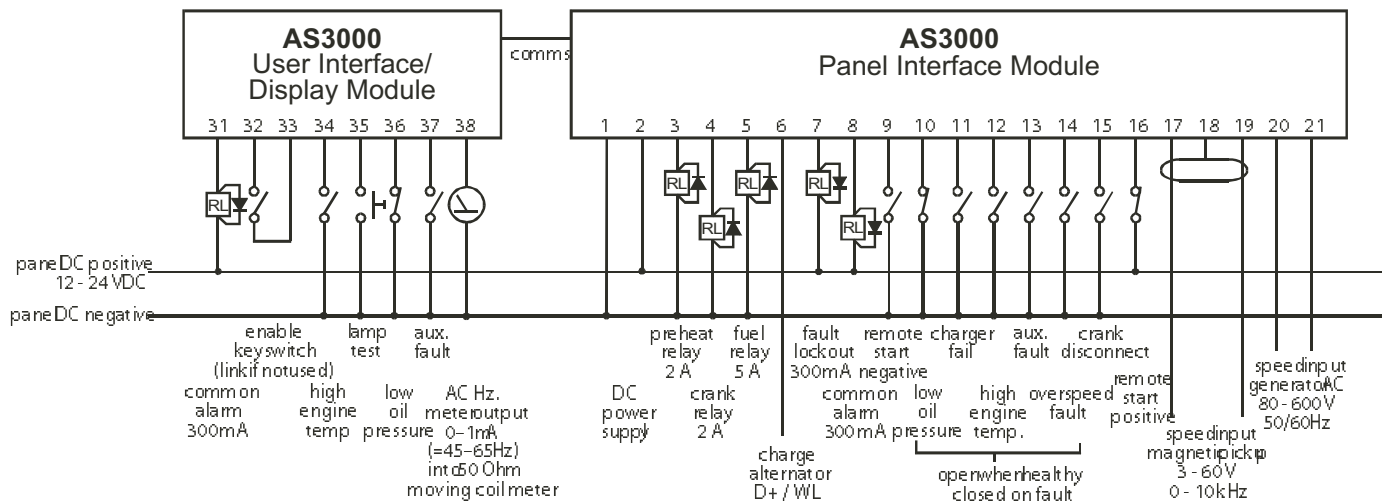


CAUTION: Do not bundle AC and DC wiring together. They must be separated by 2 inches ideally, and require separate conduit runs.

System Overview



Electrical Connection



How to order

Stock no.	Unit type
41.70.0093	AS3000 system, white faceplate
41.70.0100	AS3000 system, black faceplate
Components:	
41.05.0001	AS3000 User Interface, black faceplate
41.05.0002	AS3000 Panel Interface
41.05.0003	AS3000 User Interface, white faceplate

Warranty

A two-year warranty on materials and workmanship is given with this FWMurphy product.

A copy of the warranty may be viewed or printed by going to www.fwmurphy.com/warranty.asp.



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In order to consistently bring you the highest quality, full featured products, we reserve the right to change our specifications and designs at any time.